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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/992,222	12/17/1997	WILLIAM A. HOBBS	INPA:056	3574

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07/30/2004

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EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 07/30/2004

211

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

08/992,222

Applicant(s)

HOBBS ET AL.

Examiner

Frantz B. Jean

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2155

The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 55-78 and 85-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 66-71 and 75-78 is/are allowed.
- 6) ☒ Claim(s) 55-65, 72-74 and 85-89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

This office action is in response to the RCE filed on 1/02/2004. Claims 55-78 and 85-89 are still pending in this application.

Claim Rejections - 35 USC 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 55-65, 72-74 and 85-89 are rejected under 35 U.S.C. 103(a) as being obvious over Gates (5,701,409) in view of Carlsson et al (US# 4,053,947).

3. As for claims 55, 57-59, 62, 72 and 85, Gates teaches a system and method comprising a connector to a bus; an instruction memory to store a plurality of bus stimuli instructions (see abstract) that represent a predefined sequence of bus transactions; and one or more phase generators coupled between the connector and the instruction memory, the one or more phase generators to receive the plurality of bus stimuli instructions from the instruction memory and to provide a plurality of signals on the bus that represent the predefined sequence of bus transactions. However, Gates fails to teach storing more than one command.

Official Notice is taken with regards to the storing of multiple commands in an instruction memory for the purpose of speeding up the time needed to process

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instructions. It would have been obvious, to a person of ordinary skill in the art at the time the invention was made to use an instruction memory for multiple instruction, in Gates, to speed LIP processing. Gates discloses all of the claimed limitations above except the use of multiple transaction phases. Carlsson discloses a method for using multiple transaction phases in a related art to increase processing time and simplify a system. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Gates, to include multiple phase transactions, as taught by Carlsson, to increase processing time and simplify a system.

4. As per claims 56 and 87, Gates implicitly teaches a high level language.

5. As per claims 60-61, Gates implicitly teaches the instruction comprises an instruction word (col. 2, lines 40-45). Gates and Carlsson don't teach that the instruction word has a predefined length. Official Notice is taken that instruction words of predefined lengths are well known in the art. It would have been obvious to a person of ordinary skill in the art, at the time of the invention, to have used instruction words of any length into Gates' and Carlsson's because they are only a matter of computer design.

6. As for claims 63-65 and 73-74, they are rejected as applied above in rejecting claim 55. Gates and Carlsson don't teach what the digital logic device comprises.

Official Notice is taken that FPGA's and ASIC's are well known in the art. It would have been obvious to a person of ordinary skill in the art, at the time of the invention, to have used instruction words of any length into Gates' and Carlsson's because they are only a matter of computer design.

7. Regarding claim 89, the rejection above covers all the claimed limitations disclosed in these claims. Furthermore, it must be noted that detecting a bug is implicit in Gates (see abstract).

8. As per claims 86 and 88, assembling the sequence into a binary object code and capturing an incorrect response to a legal sequence of bus transaction are implicit in Gates.

Allowable Subject Matter

Claims 66-71 and 75-78 are allowed in light of applicants' arguments.

Response to Arguments

9. Applicant's arguments filed 10/30/2003 have been fully considered but they are not persuasive.

10. Applicants argued that Gates in combination with Carlsson does not teach (1) a predefined sequence of bus transactions, (2) Applicants also argued that the references are not combinable.

11. Examiner respectfully submits that applicants' interpretation of the prior art is inaccurate. Regarding to (1), Gates in combination with Carlsson teach a plurality of bus stimuli instructions (see abstract) that represent a predefined sequence of bus transactions, wherein each transaction has a plurality of transaction phases (see Gates fig 9a column 6 lines 49 et seq; also, see Carlsson abstract where a plurality of instructions are being executed in order to select certain types of function unit).

12. According to (2), Gates and Carlsson are combinable because they belong in the same field of endeavor which is computer. Furthermore, it must be noted that the rationale to

modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones , 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Eli Lilly & Co ., 902 F.2d 943. 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen , 851 F.2d 1401, 7 USPQ2d 1500, 1502 . (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex arte Clanp. 227 USPQ 972 (Bd. Pat. App. & Inter. 1985); and Ex parte Levengood , 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is (703) 305-3970. The examiner can normally be reached on Monday thru Friday from 8:30 to 6:00.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is 703 305 3970. The examiner can normally be reached on 8:30-6:00 M-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on 703 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz Jean



FRANTZ B. JEAN
PRIMARY EXAMINER